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DIVISION OF GAME AND FISH
CHARLES D. KELLEY
DIRECTOR

March 25, 1993

Ms. Cheryl W. Smith
Senior Remedial Project Manager
United States Environmental Protection Agency
345 Courtland Street Northeast
Atlanta, Georgia 30365

Re: Draft Remedial Investigation Report
(Volume 1, dated February 1993) Olin
Chemicals/McIntosh Plant Site
McIntosh, Alabama

Dear Ms. Smith:

The Fisheries Section of the Alabama Game and Fish Division has reviewed the above-referenced document. Our comments follow:

- (A) The report states that the hazard risks to humans should be considered maximum values because off-site risks (where concentrations of carcinogenic chemicals would be less than those on Olin's property) were not evaluated. There are, however, risks to humans who are not "residents/trepassers." Because fish and other animals freely move into and out of the "basin" during floods or at other times, "biological transport" of the carcinogens outside the plant site is occurring along with physical transport in the water column and in sediments. There are therefore risks to anglers and to various species of animals (fish, fish-eating birds, reptiles, etc.) near the site and potentially many miles from the site, particularly in the case of birds. We certainly agree that the risks are lower outside the site, but the risks are there. The Daphne, Alabama field office of the U.S. Fish and Wildlife Service has documented elevated levels of DDT and mercury in fish collected from the Tombigbee River near McIntosh, whereas levels at Chrysler, Alabama, in the nearby Alabama River drainage, were much lower. These results suggest contamination of the Tombigbee River food chain by the Olin site.

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What measures are proposed to prevent ingress/egress of animals into and out of the site and to reduce concentrations of carcinogenic compounds within the site?

- (B) The use of K factors to assess condition factors of fish is awkward. We suggest that Anderson's W_r factors be used in future reports. Although the K factors indicated no apparent reduction in condition of fish, the fish analyzed in the study bore elevated body burdens of hexachlorobenzene, DDT metabolites, mercury, and other compounds. The report states that the effects of hexachlorobenzene on fish do not appear to be significant, whereas levels of mercury might pose sublethal effects on growth or reproduction. Further, water column levels of DDT may be high enough to induce chronic effects in fish. The U.S. Fish and Wildlife Service study (conducted 1988-1990) indicates that DDT levels in Tombigbee River fish near McIntosh could be high enough to produce thin-shelled eggs in fish-consuming avian species.
- (C) The statement was made at one point in the report that bullheads do not move a great deal, but that is not necessarily true: for future reference, bullheads may be attracted in large numbers to small tributary streams during floods or in spawning season.

The Alabama Game and Fish Division appreciates the opportunity for review of this document and may wish to add additional comments in the future.

Sincerely,



Fred R. Harders
Chief of Fisheries

FRH:JHH:dc

cc: Mr. Charles Kelley, Director
Game and Fish Division